S&B Customer Service Week - October 2-5

The Safety and Buildings Division will be celebrating "Customer Service Week" with open houses at each of the S&B full service offices - Green Bay, Hayward, La Crosse, Madison, Shawano, and Waukesha.

The program will consist of a short ceremony for introductions, customer awards, and a customer feedback session, followed by refreshments, office tours, and discussions with staff.

Shawano Open House - Monday, October 2
9 a.m. to 11 a.m.
1340 E. Green Bay St.
715-524-3626

Green Bay Open House - Monday, October 2
2 p.m. to 4 p.m.
2331 San Luis Place
920-492-5601

Waukesha Open House - Tuesday, October 3
9 a.m. to Noon
401 Pilot Court
262-548-8600

Madison Open House - Wednesday, October 4
10 a.m. to Noon
201 W. Washington Ave.
608-266-3151

La Crosse Open House - Thursday, October 5
10 a.m. to Noon
4003 N. Kinney Coulee Rd.
608-785-9334

Hayward Open House - Friday, October 6
8 a.m. to 11 a.m.
10541N Ranch Rd.
715-634-4870

Inside this *WPCR*

Hearings on model building codes

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Wisconsin Plumbing Codes Report
Safety and Buildings Division, Department of Commerce
Volume 16 No. 9 September 2000

Sample S&B email address: tjoyce@commerce.state.wi.us

Safety and Buildings Offices

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2331 San Luis Pl #150
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.state.wi.us

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715-634-4870
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haywardsch@commerce
.state.wi.us

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4003 North Kinney
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1340 E Green Bay St #300
Shawano WI 54166
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Fax 715-524-3633
shawanosch@commerce
.state.wi.us

Waukesha Office
401 Pilot Ct # C
Waukesha WI 53188
262-548-8600
Fax 262-548-8614
waukeshasch@commerce
.state.wi.us

Plan Review Scheduling

For plan review scheduling for Plumbing and Buildings, call the S&B office numbers listed above, or contact the email address shown. Fax scheduling is possible, 877-840-9172. Information about the project will be needed to schedule the plan review. Any of the offices can schedule the first appropriate plan review available statewide.

Plan review for Private Onsite Wastewater Treatment Systems is provided on a first-come, first-served basis. Contact one of the offices for information.

For scheduling info, also see http://www.commerce.state.wi.us/SB/SB-DailyDoc.html.

Direct comments, address, suggestions for articles, etc., to Todd Taylor. Fax 608-264-8795. Telephone 608-267-3606. ttaylor@commerce.state.wi.us/ Madison mailing address above.

Plumbing Consultants

Tom Braun	Stevens Point	715-345-5335
Don Hough	Hayward	715-634-4804
Tim Joyce	Madison	608-825-4724
Don Oremus	Pelican Lake	715-487-6123
Jim Wehinger	Friendship	608-339-7430
Jim Zickert	Eldorado	920-872-2656
Tom Bembnister, Superv.		715-726-4520

Plumbing Plan Reviewers

Ryan Boebel	Madison	608-261-6535
Herman Delfosse	La Crosse	608-789-5535
Tom Devereaux	Hayward	715-634-3026
Wes Grube	Green Bay	920-492-5613
Dan Kraft	Madison	608-266-8075
Ken Pertzborn	Madison	608-267-2242
Robert Samuels	Waukesha	262-548-8634
Curt Wendorff	Shawano	715-526-9056

Plumbing Products Reviewers

Mike Beckwith	Madison	608-266-6742
Dan Jensen	Madison	608-267-5265
Glen Schlueter	Madison	608-267-1401

POWTS Plan Reviewers

Tom Devereaux	Hayward	715-634-3026
Wes Grube	Green Bay	920-492-5613
Julia Lewis	Waukesha	262-548-8638
Robert Kanter	Madison	608-261-7735
Pete Pagel	Madison	608-266-2889
Jim Quinlan	Madison	608-266-3937
Pat Shandorf	Hayward	715-634-7810
Jerry Swim	La Crosse	608-785-9348
Keith Wilkinson	Shawano	715-524-3630

POWTS Wastewater Specialists

Ross Fugill	Shawano	715-524-3629
Matthew Janzen	Stevens Point	715-345-5336
Leroy Jansky	Chippewa Falls	715-726-2544
Carl Lippert	Hayward	715-634-3484
Karl Schultz	Oshkosh	920-424-3311
Dennis Sorenson	La Crosse	608-785-9336
Duane Steiner	West Baraboo	608-355-3159
Allen Wendorf	Madison	608-873-5476
Harold Stanlick, Superv.		262-521-5065

Public Swimming Pool Reviewer

Dave Russell	Madison	608-267-3605

The *WPCR* is a monthly publication delivered to about 9,700 people as part of their certification, license, or registration with the Wisconsin Department of Commerce, Safety and Buildings Division. Subscriptions are also available. SBD 8340P

Event Calendar

Contact the listed Code Consultant for information on the meeting agendas, locations, etc. If you have questions concerning technicalities of the codes which are the subjects of the meetings, contact consultants and reviewers in the appropriate program area.

November 1, 2000, Wednesday, **Uniform Dwelling Code Council**, 9:30 a.m. - 2:30 p.m., *Tentative Date/Location:* Wisconsin Builders Association, 4868 High Crossing Blvd, Madison, Duane Hubeler, dhuebler@commerce.state.wi.us, 608-266-1390.

Dec. 13, 2000, Wednesday, **Multifamily Dwelling Code Council**, 9 a.m. - 3 p.m., *Tentative Date/Location:* Wisconsin Builders Association, 4868 High Crossing Blvd, Madison, Sam Rockweiler, srockweiler@commerce.state.wi.us, 608-266-0797.

For those of you who receive the *WPCR* free because you have a particular license administered by the Safety and Buildings Division, address changes should be provided to the S&B Credential Unit, madisoncred@ commerce.state.wi.us, 608-261-8500.

People with paid subscriptions, may request service and address changes from Material Orders, PO Box 2509, Madison, WI 53701. Fax 608-261-6699. Telephone 608-267-4405. Email phobbs@ commerce.state.wi.us

Subscriptions are $20, payable in advance to the Safety and Buildings Division for 12 monthly issues.

S&B WebSite http://www.commerce.state.wi.us/SB/SB-HomePage.html

Continuing Education

POWTS New Technology Training Seminar

8 a.m. to 3 p.m., Oct. 5, 2000, Best Western, 2701 South Hwy. CX, Portage

Dispersal Areas - How the Code Update Affects You - Aerobic Units - Sand Filters

Organized by the Safety and Buildings Divison, with assistance of Wayne Mink, POWTS Advisory Code Committee member - No charge - Lunch provided by sponsors - Pre-registration by Sept. 29, call Wayne Mink or Sandy Schroeder, 920-922-3830

Six hours of continuing education for Master Plumbers, Master Plumbers - Restricted Service, Journeyman Plumbers, Journeyman Plumbers - Restricted Service, POWTS Inspectors, Soil Testers, POWTS Maintainers

Public hearings coming on adoption of national model codes

By Michael F. Corry, Administrator of the Safety and Buildings Division

The Safety and Buildings Division of the state Department of Commerce will hold public hearings at the end of the year on adoption in Wisconsin of customized national model building codes. I strongly encourage municipal officials to present comments and to be part of the discussions on adoption of these codes.

The hearing sessions continue a process begun several years ago, when S&B formed about a dozen advisory councils to consider adoption of one or more of a suite of national codes being created by the International Code Council (ICC). **The model International Plumbing Code is not one of the codes being considered now in Wisconsin.**

The ICC is an unprecedented cooperative effort of three previously mutually exclusive national building code organizations, the Building Officials and Code Administrators International, the International Conference of Building Officials, and the Southern Building Code Congress International.

S&B staff joined other building and fire officials from across North America in development of the ICC codes. At the same time, S&B and the state advisory councils considered the model codes in depth, including what amendments might be needed for use of the models in Wisconsin. Comparisons of the ICC codes and Wisconsin's current building-related codes were thoroughly researched and openly discussed.

The councils and S&B staff have agreed on the general concept of adoption with a minimum of Wisconsin amendments, of the International Building Code (IBC), International Mechanical Code, International Fuel Gas Code, and International Energy Conservation Code.

To speak only of the IBC for the moment, the following councils endorsed or recommended adoption of the IBC, or those parts of the IBC that was apropos for their review: Commercial Building Code Council; Multifamily Dwelling Code Council; Fire Safety Code Council; Egress and Accessibility Code Council; Structural Code Council; Elevator Code Council.

S&B had planned a comparison of the National Fire Protection Association's Fire Prevention and Life Safety Codes with the ICC International Fire Code, in order to consider possible adoption in Wisconsin of a national fire code to replace Wisconsin's current Comm 14. However, NFPA recently announced plans to redo NFPA 1 and NFPA 101 to the extent that a comparison at this time would not be valid. **The question of adopting a model fire code is still under discussion.**

If you wish to talk about the code process or technical points of the codes, contact Jim Smith, the S&B Commercial Buildings Program Manager, jsmith@commerce. state.wi.us, 608-266-0251.

Specific public hearing dates and locations have not been selected. As soon as it is available, that information will be offered in the *WBCR* and on the S&B WebSite, http://www.commerce.state.wi.us/SB/SB-HomePage.html.

State administrative codes and the code update service may be purchased by contacting state Document Sales, 608-266-3358, or 800-362-7253, for credit card purchases. ❖ ❖ ❖ ❖ ❖ ❖

Plumbing Seminar

For three hours continuing education for master/journeymen plumbers and UDC plumbing inspectors.

When:	Where:	Mail To:
Oct. 11, 2000 5:00 p.m.-8:30 p.m.	The West Side Club 3706 Junction Road Madison, Wisconsin (Behind West Side Menards)	Harry Sulzer Inspection Unit P.O. Box 2984 Madison, WI 53701-2984

Registration for Plumbing Seminar
Residential Fire Sprinkler NFPA 13D, Questions & Answers

Name _____

Address _____

Must be received by October 4

COST: $30 PER PERSON (INCLUDES DINNER)

Confirmations are NOT sent. If you have questions, call Harry Sulzer @ (608) 266-4568.

Plumbing Continuing Education Correction

In the July and August WPCR listings of classes for the fall/winter plumbing continuing education, S&B stated that POWTS Inspectors and Certified Soil Testers would obtain credit hours for attending the class "NFPA13-D/Cross Connection Control." That is not correct. POWTS Inspectors and Certified Soil Testers will **not** obtain credit for attending that class (#3242).

S&B Bureau of Integrated Services Management Contacts

Bureau Director: Randy Baldwin, 608-267-9152
Green Bay office: Brad Johnson, 920-492-5605
Hayward Office: John Spalding, 608-789-4693
LaCrosse Office: John Spalding, 608-789-4693
Madison Office: Clyde Bryant 608-266-1835
Mary Jacobson 608-266-8456
Tom Kasper 608-267-7586
Jim Miller 608-266-8072
Credentialing Unit Supervisor, Terry Gudmandsen: 608-261-6554
Mobile Home Unit Super., Malini Ganeshapillai, 608-266-5333
Shawano Office: Brad Johnson, 715-524-6853
Waukesha Office: Tony Rubio, 262-548-8610

Questions about your continuing education credits?

Check the mailing address back page for a printed line giving your status for inspection-related S&B certifications, licenses, and registrations. Or, call the Credentialing Unit, 608-261-8500. Or, check the S&B WebSite, http://www.commerce.state.wi.us/SB/SB-HomePage.html, choose "Credentials."

Plumbing agent muncipality contact info updated

Plumbing agent municipalities are authorized to review plumbing plans and specifications for those plumbing installations located within the municipality's boundary limits* and which require approval under Comm. 82.20 (1) (b).

Appleton - 100 N. Appleton Street
Appleton, WI 54911-4799
(920) 832-6419

Eau Claire - 203 South Farwell Street
Eau Claire, WI 54701
(715) 839-4947

Green Bay -100 N. Jefferson Street Rm. 403
Green Bay, WI 54301
(920) 448-3296

Greenfield - 7325 W. Forest Home Ave.
Greenfield, WI 53220
(414) 329-5328

Janesville - 18 N. Jackson St.
P.O. Box 5005
Janesville, WI 53547-5005
(608) 755-3064

Kenosha - Dept. of Housing
625 52 Street Rm.100
Kenosha, WI 53140
(262) 653-4263

Madison - 215 Martin Luther King Jr. Blvd.
P. O. Box 2984
Madison, WI 53701-2984
(608) 266-4561

Milwaukee - Municipal Bldg., Rm. 1017
841 N. Broadway Street
Milwaukee, WI 53202
(414) 286-3364

Oak Creek - Public Works Inspection Division
8640 South Howell Ave.
Oak Creek, WI 53154
(414) 768-6547

Oshkosh - 215 Church Ave.
Oshkosh, WI 54901
(920) 236-5052

Racine - 730 Washington Ave.
Racine WI 53403
(262) 636-9164

Sheboygan - City Hall-3rd Floor
828 Center Ave.
Sheboygan, WI 53081
(920) 459-3478

* The City of Madison has a reciprocal agreement with the Safety and Buildings Division and may review plans located in Dane County. Conversely, S&B may review plumbing plans within the City of Madison

82.20(1)(b) *Department or agent municipality review*. Plumbing plans and specifications for the types of plumbing installations listed in Table 82.20-2 shall be submitted for review to an agent municipality, if the installation is to be located within the agent municipality, or to the department, if the installation is not to be located within an agent municipality. A municipality shall be designated as an agent municipality in accordance with sub. (2). Written approval for the plumbing plans shall be obtained prior to installation of the plumbing.

Safety and Buildings-related codes are on the Internet,

www.commerce.state.wi.us/SB/SB-CodesListing2000.html

Not all codes are available electronically. Paper copies may be purchased from Document Sales, 800-362-7253, for credit card purchases, or 608-266-3358.

Frequently asked questions regarding sumps, drains, and other plumbing for elevators

by Brian Rausch, S&B Elevator Consultant, 262-521-5444, brausch@commerce.state.wi.us

Under what conditions is a drain or sump required in a new elevator pit? A drain or a sump with an automatic pump must be provided in a pit for all full-sized passenger and freight elevators and for smaller limited use/limited application (LULA) elevators. This is required by ASME A17.1 National Elevator Code, Rule 106.1b(3), which is adopted by the Wisconsin Elevator Code, Comm 18. Comm 18.23 requires that such drains and sumps comply with Comm 82.33 and 82.36, and states that elevator pit drains shall not be connected directly to sanitary drain systems. This requirement has been in Comm 18 since April 1998. Prior to that, drains were only required in sprinklered pits for these elevators.

Drains or sumps are not required in 12-inch deep pits for Part V elevators (only allowed to be installed in churches built prior to 1994), and are not required for 3-inch deep pits for vertical or inclined platform lifts.

Are there any exceptions to the drain or sump requirement? The only possible exception to the requirement for a pit drain or sump could be a traction elevator (not hydraulic) where the pit is subjected to temperatures below freezing. This must be by petition for variance to Comm 18.23.

An elevator with elevator pit above grade must have a drain or sump per Comm 18.23. Soil type, location of water table, and pit construction method are not factors in determining compliance with Comm 18.23, and will not be considered in a petition for variance.

What water is being drained or pumped? The drain or sump is required for water from both external and internal sources. This includes water potentially seepage from underground, sprinkler discharge, plumbing failure, and condensation.

Is a drain or sump ever required to be installed in an existing elevator pit? Yes. A drain or sump must be installed in an existing elevator pit if the pit typically has water entering it from any of the above-mentioned sources. The need for a drain or sump will be determined by the elevator inspector. Addition of fire sprinklers to a hoistway, by itself, does not require the addition of a drain or sump.

Can two or more side-by-side elevators share a drain or sump? Sometimes. Where two or more elevators are installed side by side in a larger common hoistway, separate drains or sumps are not required for each elevator, provided the entire pit floor beneath all cars is pitched slightly to drain to the common drain or sump.

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Elevator plumbing FAQs

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Can a pit floor have trenches or depressions to aid drainage? No. ASME A17.1, Rule 1061b(2) requires the pit floor to be free of trenches or depressions except those necessary for installation of elevator equipment.

When no plumbing plan review is needed, is a drain or sump required? Yes. If an elevator is added to a building and the addition is too small to require plumbing plan review, a drain or sump is still required.

Where can the sump pump discharge pipe be routed? The discharge pipe can be routed through the hoistway and machine room since it serves elevator spaces only. It is strongly recommended that this pipe be routed as far away from the elevator controller and equipment as possible so a leak would not potentially cause elevator shutdown. There are clearance requirements within the hoistway and a minimum 7-foot headroom requirement in the machine room. Coordination with elevator contractor is necessary. Plastic pipe is acceptable. Penetrations through fire-rated wall or ceiling assemblies must be protected with a UL listed method.

What type of lid must be used on a sump in an elevator pit? The sump lid must be flush with the floor to avoid creating a tripping hazard, as required by ASME A17.1, Rule 106.1b(4). The lid must be capable of supporting at least 200 lbs. If there is no separate floor drain, the lid must be of open grating to allow for drainage.

There is one duplex GFCI receptacle on the other side of the pit. Can the pump cord be plugged into it? No. The sump pump may be powered through a rubber cord, but the receptacle must be located to minimize cord length. The cord must not be a tripping hazard.

Are drains required in the lower pit for an escalator or moving walk? If the escalator or moving walk is at or near the outdoors where water from wet shoes and clothing would accumulate in the pit, a drain must be provided in the lower pit.

Can a drain or sump be installed in an elevator machine room? No. Floor drains or sumps are no longer allowed in elevator machine rooms, ASME A17.1, Rule 102.2(d) and Comm 18.21(1). If mechanical cooling is provided for a machine room, the condensate drain must exit the machine room.

Can other plumbing be installed in elevator hoistways or machine rooms? No. The elevator code strictly prohibits piping from being installed in elevator hoistways (which includes the pit), machine rooms, or machine spaces unless that piping is directly related to the operation of the elevator. The elevator code also strictly prohibits access to piping, cleanouts, valves, fittings, pumps or any other building component through an elevator hoistway, machine room, or machinery space. An elevator penthouse may have a roof conductor in it as long as the conductor is for the roof above the elevator penthouse only.

Safe access to equipment in elevator pits? Entry into most elevator pits requires a special key which should be available only to persons trained in safe entry to elevator pits. Plumbers, building maintenance persons, and others who are not trained in the safe entry to elevator pits should not attempt to service equipment in the pit without the assistance of a person with such training.

Safety features? The elevator must be determined to be unoccupied prior to shutdown. The main disconnect for the elevator(s) must be opened and locked. Before entering an elevator pit, the pit stop switch must be placed in the stop position. This switch is located adjacent to the pit ladder and reachable from the lowest landing level. Pits deeper than 66 inches require a second pit switch approximately four feet above the pit floor. The pit light switch is also located adjacent to the ladder. Some older elevators may not have these features, so care should always be taken when

Two POWTS forms can be filled in electronically via the S&B WebSite

Test to see how customers react to interactive format

The Soil Evaluation Report SBD-8330 and the Sanitary Permit Application SBD-6390 are now offered on the S&B WebSite in a format that allows filling in electronically, as a test to see if S&B customers want to use the documents. The division is contemplating whether or not to make more effort to provide interactive forms, with the ultimate goal of having some forms submitted back to S&B electronically. (These specific two forms are usually not submitted to S&B, but were chosen as a extra service to soil testers and installers, with hope it would be in their interest to try the forms for their own use.) For more information, go to www.commerce.state.wi.us/SB/SB-PowtsFormsTest.html.

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entering, working in, and exiting elevator pits. Always assume the elevator could begin moving.

Accumulation of gases? Elevator pits are considered confined spaces and may warrant testing for poisonous gases that might accumulate at the lowest point of a building.

While under the elevator? If for some reason the elevator would begin to move downward at normal operating speed, there should be ample time to seek refuge. Be aware of the location of the beams that support the bottom of the elevator car in case the car descends. Be aware of possible tripping hazards from pit channels and buffers. The elevator code now requires the pit floor refuge space to be outlined and marked, although this might not be the case on older elevators and those under construction. A clear height of 24 inches shall be provided between the lowest structural member on the car and the pit floor when the elevator is resting on its buffers.

If you have questions, contact Brian Rausch, Elevator Program Engineering Consultant , 401 Pilot Court, Suite C, Waukesha, WI. 53188, 262-521-5444, brausch@commerce.state.wi.us.

How many leaching chambers do you need?

As of July 1, 2000, manufacturers of leaching chambers that choose to seek approval for sizing credits for their products must request individual plumbing product approval. All of the leaching chamber manufacturers that marketed their products in Wisconsin in the past have requested and received revised approvals for their products.

The changes in soil application rates that are part of the revised Comm 83, Private Onsite Wastewater Treatment Systems code, have affected the sizing credits for the leaching chambers. S&B Plumbing Products Reviewer Mike Beckwith prepared the information below to provide guidance on sizing leaching chambers under the new code. If you have any questions regarding individual leaching chamber product approvals, or the information below, contact Mike Beckwith, 608-266-6742, mbeckwith@commerce.state.wi.us.

Calculating the number of leaching chambers needed to get absorption area design credit

by Mike Beckwith,
S&B Plumbing Products Reviewer

Leaching chambers are not required to receive individual plumbing product approval, according to revisions to Comm 84, Plumbing Products, part of the Comm 83, POWTS, code revision package. However, in order to get sizing credit leaching chambers, designers must have a plumbing product approval.

Leaching chambers historically used in Wisconsin now have product approvals revised to comply with the new code, andto provide sizing credit.

The credit is based on soil application rates. The revised approvals assign a higher soil application rate for leaching chambers than is listed in Tables 83.44-1 and –2, Maximum Soil Application Rates. See the chart on the next page of this *WPCR* for specific soil applications rates for approved leaching chambers.

To calculate absorption area needed for a POWTS design and the number of chambers required in order to receive sizing credit, you can use the following formulas:

Actual absorption area required = Design Wastewater Flow (DWF) divided by the adjusted soil application rate

Number of chambers required = Actual absorption area required divided by actual open bottom area of chamber

Example: Chamber with soil application rate of 0.5 gal/ft^2/day for soils having a soil application rate of 0.3 gal/ft^2/day.

DWF = 450 gal/day

Actual open bottom area of the chamber = 17.7 ft^2/chamber.

Actual absorption area required = 450 gal/day divided by 0.5 gal/ft^2/day = 900 ft^2

Number of chambers required = 900 ft^2 divided by 17.7 ft^2/chamber = 50.85 or 51 chambers

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Soil Application Rates for Leaching Chambers Assigned Sizing Credit

Manufacturer and Contact name w/phone #	Product Name	Model	Actual Open Bottom Area per Chamber	Assigned Soil Application Rates for per Table 83.44-1 or –2, Wis. Adm. Code	Assigned Soil Application Rates for Sizing Credit per Product Approval
Hancor Frank Daly 419-424-8305	Enviro Chamber	Hi Capcity	17.7 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.35 gals/ft^2/day 0.5 gals/ft^2/day 0.7 gals/ft^2/day 0.9 gals/ft^2/day 1.2 gals/ft^2/day
	Enviro Chamber	Standard Unit	17.7 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.27 gals/ft^2/day 0.4 gals/ft^2/day 0.54 gals/ft^2/day 0.68 gals/ft^2/day 0.95 gals/ft^2/day
Infiltrator Systems Inc Mike Monfeli 262-238-0908	High Capacity Sidewinder		17.14 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.35 gals/ft^2/day 0.5 gals/ft^2/day 0.7 gals/ft^2/day 0.9 gals/ft^2/day 1.2 gals/ft^2/day
	Equalizer 36	EQ 36	15.28 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.27 gals/ft^2/day 0.4 gals/ft^2/day 0.54 gals/ft^2/day 0.68 gals/ft^2/day 0.95 gals/ft^2/day
PSA, INC Dick Bachelder 800-598-2614	BioDiffuser	16" High Capacity	17.7 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.35 gals/ft^2/day 0.5 gals/ft^2/day 0.7 gals/ft^2/day 0.9 gals/ft^2/day 1.2 gals/ft^2/day
	Standard Unit	14" High	17.7 ft^2	0.2 gals/ft^2/day 0.3 gals/ft^2/day 0.4 gals/ft^2/day 0.5 or 0.6 gals/ft^2/day 0.7 gals/ft^2/day	0.35 gals/ft^2/day 0.5 gals/ft^2/day 0.7 gals/ft^2/day 0.9 gals/ft^2/day 1.2 gals/ft^2/day

Procedures for Evaluating Non-Uniform Soil Horizons, Comm 83.44(4)(b)

by Roman Kaminksi, S&B POWTS Program Manager

The revised Comm 83, Private Onsite Wastewater Treatment Code, generally recognizes three feet of unsaturated soil as adequate for the absorptive treatment of septic tank effluent containing greater than 10^4 CFU/100ml fecal coliform, and two feet as adequate for treating influents of less than 10^4 CFU/100ml fecal coliform.

However, soil materials dominated by coarse sand and/or containing a large proportion of rock fragments larger than 2.0 mm. are recognized as having a diminished capacity to treat wastewater compared to soils composed of finer textured materials. To compensate for this lesser treatment capacity, Table 83.44-3 requires greater depths of these coarser materials to achieve the same treatment as the finer textured soils.

Many coarse soils are not uniformly composed of the same material, but are made up of horizons, strata, or layers of materials having different textures and rock fragment content. Table 83.44-3 cannot be directly applied to a stratified soil column. However, its basic means of establishing a minimum depth of unsaturated soil required for effective treatment can be applied to each described layer.

This is done by deriving a depth compensation factor from Table 83.44-3 for each described soil texture and applying it to the measured thickness of the individual layers in a stratified soil column. The compensation factors that are applied to the various coarse soil materials to determine the thickness for treatment equivalent to non-coarse soil are presented in a chart below.

Soil Texture	Multiply Layer Thickness By	To Get Equivalent Non-Coarse Soil Thickness [1] For:
Very Coarse Sand	0.30	Influents >10^4 CFU/100ml fecal coliform
or Coarser [2]	0.40	Influents <10^4 CFU/100ml fecal coliform
Coarse Sand	0.60	Influents >10^4 CFU/100ml fecal coliform
& Loamy Coarse Sand	0.67	Influents <10^4 CFU/100ml fecal coliform w/<35% ca. frags.
Coarse Sand	0.30	Influents >10^4 CFU/100ml fecal coliform
& Loamy Coarse Sand	0.40	Influents <10^4 CFU/100ml fecal coliform w/>35% to <60% ca. frags.
Sand	1.00	Influents >10^4 CFU/100ml fecal coliform
	1.00	Influents <10^4 CFU/100ml fecal coliform
Sand	0.30	Influents >10^4 CFU/100ml fecal coliform
w/>35% to <60% ca. frags.	0.40	Influents <10^4 CFU/100ml fecal coliform

1 Determine total equivalency by adding up the equivalent thickness for the various coarse layers in the profile. The minimum standard is 36" for influent >10^4 CFU/100ml fecal coliform and 24" for influent <10^4 CFU/100ml fecal coliform.

2 Coarse sand soil texture dominated by particles between 1.0 and 2.0 mm.

Example: 27" Very Coarse Sand X 0.30 = 8.1" of equivalent thickness for influent >10^4 CFU/100ml fecal coliform, or 27" Very Coarse Sand X 0.40 = 10.8" of equivalent thickness for influent <10^4 CFU/100ml fecal coliform.

If you have questions, contact a Wastewater Specialist listed on page 2 of this *WPCR*.

Effluent Distribution When an Existing Treatment Tank is Replaced With a Component That Produces Higher Quality Effluent, Comm 83.03(1) and Comm 83.44(5)(b)1

by Roman Kaminksi, S&B POWTS Program Manager, 715-345-5334, rkaminski@commerce.state.wi.us

I have been asked questions about situations where an existing POWTS system is modified to include a component that produces higher quality effluent that meets the criteria specified in Comm 83.44(5)(b)1 for pressurized distribution. Specifically, does this type of modification require abandonment of the existing gravity-fed distribution cell even if it is code compliant?

Comm 83.03(1)(a) states: "... a new POWTS shall conform with this chapter." However, Comm 83.03(1)(b) states: "A modification to an existing POWTS, including the replacement, alteration or addition of materials, appurtenances or POWTS components, shall require that the modification conform to this chapter."

The intent of the code is to require that new distribution cells that receive higher quality effluent be designed to incorporate pressure distribution. A modification to an existing system must also conform with the new code. However, existing distribution cells that are code-compliant based on the code that was in effect at the time they were originally installed do not have to be abandoned and replaced with a pressure distribution network. This includes existing distribution cells that are code compliant, but may be ponded. Many of these ponded cells can benefit from the introduction of higher quality effluent.

Code developers will clarify this issue in future revisions to Comm 83.

How are you venting your septic tank?

The revised Comm 83, POWTS Code, does not prescribe how a septic tank must be vented.

It does however, mandate that each septic or holding tank be provided with a means of releasing to the atmosphere the gases that are formed inside of the tank. This does not mean that a vent has to be installed on the septic tank.

Here are two means of releasing septic tank gases to the atmosphere.

Method 1 – For systems that utilize a pump or siphon tank, the vent on the pump or siphon tank will release the septic tank gases to the atmosphere.

Method 2 – For systems that utilize gravity flow throughout the system, a vent connected to one of the pipes in the distribution piping network will serve. If you install the vent so that it extends down to the infiltrative surface and connect it to the network in a manner that will prevent false ponding, you could then use the vent as an observation pipe as well as a vent.

The vent is provided in the septic tank by providing a free flow of air over the baffles or through the compartment outlet, so the tank itself does not require a vent.

Regardless how you vent the septic tank gases, the vent must extent at least 12 inches above finish grade and terminate with a vent cap or return bend.

Agency-listed cross connection devices will not be in the Plumbing Products Register

by Mike Beckwith, S&B Plumbing Products Reviewer, 608-266-6742, mbeckwith@commerce.state.wi.us

Information on cross connection control devices in the *Wisconsin Plumbing Product Register* offically changed September 1. Devices that are listed by an acceptable national listing agency as conforming to the standards in Comm Table 84.11 will **not** be in the Register beginning with the October 2000 issue.

Rather than depend soley upon the Register for information on approved devices, installers may now look for listing agency seals.

There are two situations under which devices will be recorded in the Register. First, the register will include devices that have been approved by the Safety and Buildings Division and are not listed by a listing agency. Also in the Register will be devices that meet a standard not in Comm Table 84.11, such as a new standard that has not yet been adopted in Wisconsin.

The acceptable listing agencies are recorded in the appendix of Comm 84. They include American Society of Sanitary Engineering (ASSE), IAPMO Research and Testing (IAPMO), Intertek Testing Services NA (ITS), NSF International (NSF), and Underwriters Laboratories (UL). These agencies require their seal of certification be on each product or packaging.

If the cross connection device does not bear one of the agency seals, it must be listed in the *Wisconsin Plumbing Product Register*, and/or have received plumbing product approval from S&B.

ASSE	IAPMO	ITS	NSF	UL
Seal located on product	Seal located on product	Seal located on product or packaging, if size of product does not permit label to be on product	Seal located on product	Seal located on product or packaging, if size of product does not permit label to be on product

Hearings on change in renewal of expired credentials

The Safety and Buildings Division will hold a public hearing Tuesday, September 22, 2000 on proposed Comm 5 rule changes relating to the renewal of expired credentials. The hearing will be at 1 p.m. in room 3B or the Thompson Commerce Center, 201 West Washington Ave., Madison. A rule draft is available on the S&B WebSite, www.commerce.state.wi.us/SB/SB-RuleChanges.html, or by calling Roberta Ward, 608-266-8741.

Interested persons are invited to appear at the hearings and present comments on the proposed rules. The hearing record will remain open until October 6, 2000, to permit submittal of written comments from persons who are unable to attend a hearing or who wish to supplement testimony offered at a hearing. Written comments should be submitted to Ronald Acker, Program Development Bureau, P.O. Box 2689, Madison, WI 53701-2689.

These hearings are held in accessible facilities. If you have special needs or circumstances that may make communication or accessibility difficult at the hearing, please call (608) 266-8741 or TTY at (608) 264-8777 at least 10 days prior to the hearing date.

The proposed rules consist of revisions in chapter Comm 5 relating to the consequences for renewal of expired licenses, certifications and registrations. Under the current renewal requirements, a renewal is considered late if it is not submitted within 6 months after the expiration date of the license, certification or registration. Under the proposed rules, the renewal must be submitted no later than one term after the expiration date before it is considered late. A late renewal means the applicant must comply with all of the requirements for obtaining the license, certification or registration initially. The proposed rules also correspondingly extend the time period during which any required continuing education credit may be obtained.

The proposed rules also have a revision in the qualification requirements for the master plumber-restricted examination by including a licensed journeyman plumber as a qualified person.

Water heater installers ...

Some common sense ways to prevent scalding ...

- In general, initially set water heater thermostats at the lower, 120 degree temperature. Be especially aware of code and statute temperature setting requirements for rental or health-care facilities.
- Provide customers with written accurate information on the hazards of hot water.
- Elderly, young, tired, distracted, visitors, homeowners, renters - all sorts of people with all sorts of happenstance can be endangered by scalding water.
- Talk to customers about anti-scald devices for the shower and bath tub, where the large majority of scalding accidents occur.
- Discuss installing a mixing valve in the hot water piping near the water heater. With this device, heated water for consumer-contact fixtures and fittings arrives at a lower temperature than that delivered to the automatic appliances, which receive direct flows form the water heater.
- Use the right size water heater. An old 40-gallon water heater set at 140 degrees can be replaced with a new 50-gallon water heater at 120 degrees.

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